Amendments to the Claims:

The below listing of claims replaces all previous listings and versions of claims in this application:

1. (Currently Amended) A method ~~for downscaling a digital matrix image, using a selected ratio R, in which the matrix image includes a large number of lines, each line including a large number of pixels, so that the intensity values of the pixels form the matrix, and in which the output matrix pixels formed by scaling correspond to sub-groups of the original matrix, from the intensity values of the pixels of which an average is calculated for each pixel of the output matrix, characterized in that three integers X, Y, and Z are selected in such a way that~~

~~- the scaling ratio R corresponds approximately to the equation Y/(Z*X), in which Y < Z, and~~

~~- scaling is performed in two stages, of which~~

~~- in the first stage, the matrix is scaled using the ratio 1/X, thus creating the pixels of an intermediate matrix and, in the second stage, the each pixel of the intermediate matrix is scaled using the ratio Y/Z~~

comprising, with use of a processor:

determining an original digital matrix image to be scaled,

selecting a scaling ratio R by setting integers X, Y, and Z, wherein the scaling ratio R corresponds approximately to an equation Y/(Z*X) and wherein Y < Z,

coarse scaling the original matrix by using a ratio 1/X to create pixels of an intermediate matrix, and

fine scaling the intermediate matrix by using a ratio Y/Z to create a final matrix image.

2. (Currently Amended) A method according to Claim 1, wherein ~~characterized in that~~ the second scaling is performed, after the first scaling, to the pixel group calculated for the intermediate matrix, without completing the calculation of the entire intermediate matrix.

3. (Currently Amended) A method according to Claim 1, wherein ~~characterized in that, in order to minimize the calculation process, in the first scaling~~ the integer X is selected to be as great as possible, according to the integers maximums selected for Y and Z and the selected scaling ratio R.

4. (Currently Amended) A method according to Claim 1, wherein ~~characterized in that, in order to minimize the amount of memory required in the second scaling, in the first scaling~~ the integer X is selected to be as great as possible as the power of two.

5. (Currently Amended) A method according to Claim 1, wherein ~~characterized in that, in order to optimize the image quality, the integers X, Y and Z are set in such a way that~~ 1/X is approximately Y/Z.

6. (Currently Amended) An apparatus comprising:
~~for downscaling a digital matrix image by a selected ratio R, in which the apparatus includes a first~~ memory areas configured to store ~~area for~~ an original digital ~~recording the~~ matrix image to be scaled, ~~a second memory area~~ for data to be processed, and configured to store an ~~processing, and a third memory area for the~~ output image matrix, a central unit (CPU) configured to ~~for performing processing, and in which the matrix image includes a large number are lines, each line including a large number of pixels, so that the intensity values of the pixels form the matrix, and i which the pixels of the output matrix formed by scaling correspond to the sub-groups of the original matrix, from the intensity values of the pixels of which an average is calculated for each pixel of the output matrix, characterized in that the apparatus is arranged to~~ process the original matrix image in two stages by a selected scaling ratio R, in the first stage ~~of which~~ the original matrix is coarse scaled by using a ~~the~~ ratio 1/X to create~~, thus creating the~~ pixels of the intermediate matrix ~~for the second memory area~~, and in the second stage each pixel of the intermediate matrix is fine scaled by using a ~~the~~ ratio Y/Z, and wherein an equation Y/(Z*X) corresponds approximately to a ~~that the said integers X, Y, and Z meet the conditions:~~

~~the~~ scaling ratio R ~~corresponds approximately to the equation Y/(Z*X),~~ and wherein

[-] Y < Z.

7. (Currently Amended) An apparatus according to Claim 6, wherein ~~characterized in that~~ the apparatus is integrated in connection with the image sensor of a camera.

8. (Currently Amended) An apparatus according to Claim 7, wherein ~~and in incorporating a host system,~~ the apparatus incorporates a host system and the coarse scaler is integrated in connection with the image sensor of a camera and the fine scaler is integrated in the host system.

9. (Currently Amended) An apparatus according to Claim 6, ~~characterized in that the apparatus includes a scaler~~ wherein the scaling unit~~, in which there are~~ comprises separate processors (CPUs) for the coarse scaling and fine ~~scalers~~ scaling.

10. (Currently Amended) An apparatus according to Claim 6, ~~characterized in that~~ wherein the apparatus includes a memory for the scaling function of at most 4 image-sensor lines for each ~~colour~~ color component.

11. (Currently Amended) An apparatus according to Claim 6, wherein ~~characterized in that~~ the apparatus is fitted to a mobile station.

12. (New) A computer-readable memory having software stored thereon and the software when executed by a central unit (CPU) performs:
determining an original digital matrix image to be scaled,

selecting a scaling ratio R by setting integers X, Y, and Z, wherein the scaling ratio R corresponds approximately to an equation Y/(Z*X) and wherein Y < Z,

coarse scaling the original matrix by using a ratio 1/X to create a pixels of an intermediate matrix, and

fine scaling the intermediate matrix by using a ratio Y/Z to create a final image matrix.